

Abstract of the Disclosure

A built-in antenna system for indoor wireless communications includes an AP antenna, all of the surfaces of which, except for an emitting surface, are installed behind wall surfaces in a wall of a building, and includes an access point (AP) (or an RF unit) connected to the AP antenna. Alternatively, the antenna system includes an antenna structure that is installed to pass through a selected wall of a building and an AP (or RF unit) connected to the antenna structure, the antenna structure having a sliding structure that can be adjusted according to the thickness of the wall. The shift of a frequency band caused by the wall may be avoided, and high-quality wireless communications is achieved regardless of the location of a wireless communication terminal in the building. Further, it is possible to increase the intensity of an electric field at the position of the terminal.